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TERMS:

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THE UNITED COMMUNITIES.

ONEIDA COMMUNITY

Is an association living in Lenox, Madison Co., N. Y., four miles south of Oneida and a few rods from the Depot of the Midland Railroad. Number of members, 205. Land, 654 acres. Business, Manufacture of Hardware and Silk goods, Printing the CIRCULAR, Horticulture, &c. Theology, Perfectionism. Sociology, Bible Communism.

WILLOW-PLACE COMMUNITY.

Branch of O. C., on a detached portion of the domain, about one and one-fourth miles north of O. C. Number of members, 19. Business, Manufactures.

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SPECIAL NOTICE.

The O. C. and Branches are not "Free Lovers," in the popular sense of the term. They call their social system BIBLE COMMUNISM or COMPLEX MARRIAGE, and hold to freedom of love only within their own families, subject to Free Criticism and the principles of Male Continence. In respect to permanency, responsibility, and every essential point of difference between marriage and licentiousness, the Oneida Communists stand with marriage. Free Love with them does *not* mean freedom to love to-day and leave to-morrow; nor freedom to take a woman's person and keep their property to themselves; nor freedom to freight a woman with offspring and send her down stream without care or help; nor freedom to beget children and leave them to the street and the poor-house. Their Communities are families, as distinctly bounded and separated from promiscuous society as ordinary households. The tie that binds them together is as permanent and sacred, to say the least, as that of marriage, for it is their religion. They receive no new members (except by deception or mistake), who do not give heart and hand to the family interest for life and forever. Community of property extends just as far as freedom of love. Every man's care and every dollar of the common property are pledged for the maintenance and protection of the women and children of the Community.

ADMISSIONS.

These Communities are constantly receiving applications for admission which they have to reject. It is difficult to state in any brief way all their reasons for thus limiting their numbers; but some of them are these: 1. The parent Community at Oneida is full. Its buildings are adapted to a certain number, and it wants no more. 2. The Branch-Communities, though they have not attained the normal size, have as many members as they can well accommodate, and must grow in numbers only as they grow in capital and buildings. 3. The kind of men and women who are likely to make the Communities grow, spiritually and financially, are scarce, and have to be sifted out slowly and cautiously. It should be distinctly understood that these Communities are not asylums for pleasure seekers or persons who merely want a home and a living. They will receive only those who are very much in earnest in religion. They have already done their full share of labor in criticising and working over raw recruits, and intend hereafter to devote themselves to other jobs (a plenty of which they have on hand), receiving only such members as seem likely to help and not hinder their work. As candidates for Communism multiply, it is obvious that they cannot all settle at Oneida and Wallingford. Other Communities must be formed; and the best way for earnest disciples generally is to work and wait, till the Spirit of Pentecost shall come on their neighbors, and give them Communities right where they are.

SEEN AND UNSEEN.

II KINGS 6: 14-18.

They gathered round the mountain's slope
The vast embattled host,
In all the martial blazonry
That Syria's king could boast!
Warriors in bravery of mail,
With sword, and spear, and shield,
With chariot wheel and prancing steed,
Career'ing o'er the field.

Oh, grandly on the bannered host
Looked forth the rising sun!
Oh, brightly through the crystal air
Helmet and corselet shone!
And all their spangled panoply
Flung back the sunlight's gleam,
As if the horses were of fire—
The chariots of flame!

In all their pageantry and pride,
In serried ranks they stood,
Around the modest home where dwelt
The humble man of God.
What single heart will dare confront—
What might of single hand
Will hope to brave this bold array,
Their bristling ranks withstand?

The servant of the man of God,
When bursts upon his gaze
The vision of the circling bands,
Stands in bewildered maze;
His blinded eye of sense can see
Naught but the earthly host:
"Alas!" in blank dismay he cries,
"My Master! we are lost!"

No terror shook the prophet's soul:
Uplifted in that hour
His spirit on its Helper leaned,
And felt an unseen Power.
Warriors of heaven—a shining host
Around his dwelling hem;
"Fear not," he cries, "for those with us
Are more than those with them."

And answering the prophet's prayer,
Upon his servant's eyes
The vision of the angelic host
Flashes with glad surprise!
Ten thousand times ten thousand strong,
Around, above, they stand;
In serried ranks a solid front,
Band rising beyond band!

What wonder that the prophet's soul
The hosts of earth defied,
When thronging spirits fill the skies,
And heaven stands by his side!
What wonder that the Syrian bands
Give way without a blow,
Stunned by a stroke they knew not whence,
Blinded they knew not how!

Oh, ye who stand for truth and God,
Trust not your mortal sight!
Fear not the thronging multitudes,
Fear not their marshaled might!
One soul in panoply of Heaven
Is stronger than their host!
The cause which God befriends can not
Outnumbered be, or lost!

Celestial hosts muster their ranks,
Waving on high their swords:
Voices of God—voices of Heaven
Speak through your burning words:
Brighter than flaming chariot,
Stronger than fiery horse,
All heaven is marshaled on your side—
God and the Universe!

[Admance.]

HOME-TALKS ON THE BIBLE.

BY J. H. NOYES.

VII.

I HAVE said that the great question is not whether the Bible *was* inspired when it was written, but whether it *is* inspired now. But we need not be afraid to look at the question

whether it *was* inspired, that is, whether the men who wrote it had God's help in writing it. We know something about inspiration in our own experience. Take, for instance, a volume of the CIRCULAR. It is like the Bible in these respects, viz., its contents were written at different times, by a great number of persons; and yet it represents a definite body and a certain Community spirit. Now if we were to look it over for the purpose of pronouncing judgment on its contents, we should say probably that such and such articles are inspired, and that here and there is one that is not inspired; that some articles are *full* of inspiration; while others have only faint traces of it; and that on the whole it is a valuable, magnetic book. When we are finished judges of inspiration, as we shall be if we continue in the school of Christ, we shall be able to pronounce judgment on the Bible in the same way. I have no doubt that there is a great *difference* in the inspiration of different books of the Bible. There was certainly a great difference in the inspiration of the different men of Bible history. Think of the difference between the times of the Old Testament and the New, in regard to the gift of the Spirit. John the Baptist was the last representative of the Old Testament; and Christ said of him, "He that is least in the kingdom of heaven is greater than he." We have every reason to believe that inspiration, in most cases, operated on men in their writing, only as it existed and operated in their general character. If that is true, then John the Baptist might have written a book that would have been inspired, and yet would have been *less* inspired than the talk and writing of the least of the Pentecostal Church. It is possible that in some few instances the writing of Bible matter was done, as the writing of the Spiritualist mediums is supposed to be done, by mechanical direction and specific orders, without the intervention of the intelligence and character of the writer. But these instances must be few, and this kind of inspiration must be regarded as abnormal and even inferior.

Assuming that, in general, inspiration in writing was simply the manifestation of the inspiration which the writer had in his general character; we need not fear to conclude that some parts of the Bible are much more inspired than others, and especially that the New Testament is much more inspired than the Old. At the same time we must be careful not to allow the liberty of judgment we thus assume to hurry us into rejecting the Old Testament, or any part of it, as absolutely not inspired. There may be gold in the Old Testament earth, though not so great a percentage as in the New. Our business is to get the gold all out, be it more or less. We must not despise or

neglect even the traces of God's infusion. But even now, with the little understanding of inspiration that I have attained, I am perfectly free to say, not only that I believe the New Testament much more inspired than the Old, but that I believe that some parts of the New Testament are more inspired than other parts. For instance, while Swedenborg throws out the whole of Paul's writings as not belonging to the Word, I am bold to say that those writings are the very core and marrow of the Word, more inspired than any other part of the Bible, Old Testament or New. Indeed, without Paul's writings we should have no New Testament, and nothing worthy to be called a Bible. His inspiration illuminates the whole Book.

SOLDIERS OF THE DEVIL.

Home-Talk by J. H. N., W. P., Mar. 17, 1872.

THE practice of indulging in little disparaging remarks on people around us, without any intention or possibility of doing good by it, is so common that it may seem a trifling evil; but if we consider it in the light of true spiritual philosophy, we shall find it to be a very serious injury, not merely to those who are evil spoken of and to society at large, but more especially to the persons who give themselves up to such indulgences. The Bible teaches us that the Devil is the special patron of accusation, as God is of justification. In the book of Job Satan makes his *début* on the Bible stage as a slanderer, talking to God about Job's weaknesses, and predicting his downfall; and the malignant character there brought out is sustained in all that we find about the devil in the New Testament. His very name—*o' diabolos*—signifies "*the accuser*," and in the apocryptic drama which closes the New Testament, he figures as the "*accuser of the brethren, who accuses them before God day and night*." Whether we take the testimony of the Bible, or of our own experience, we cannot doubt that there is a mighty spirit of evil, worthy to be called the Devil; and that its special character is just what these Bible-hints point at. It is the spirit that is forever busy in the work of evil-thinking and evil-speaking, discouraging all righteousness by detraction, fastening self-accusation on some, the itch for evil-speaking on others, and discontent, which is really evil-thinking of God, on all. Christ is laboring to justify, and the Devil, his adversary, is squarely pitted against him, laboring to unjustify; and so the issue is made up between them. Surely it is not a trifling thing to take the wrong side on this great issue and enlist to fight for the devil; but this is just what they do who give themselves up to evil-thinking and evil-speaking; they are soldiers of the Devil, and the worst of their case is not the evil they do by shooting at their neighbors, but the miseries they bring on themselves by associating with the Evil One and living in his camp.

SUBJECTIVE HAPPINESS.

BY R. S. DELATRE.

"Although the fig-tree shall not blossom, neither shall fruit be in the vines; the labor of the olive shall fail, and the fields shall yield no meat; the flock shall be cut off from the fold, and there shall be no herd in the stalls; yet I will rejoice in the Lord, I will joy in the

God of my salvation. The Lord God is my strength, and he will make my feet like hinds' feet, and he will make me to walk upon mine high places." Hab. 3: 17-19.

These words have been on record for ages—have been preached upon the house-tops—proclaimed throughout the world—thrust into every nook and corner of heathendom; and with what result? How many of the myriads who have had the word of God brought home to their very doors have an appreciation of the attitude of heart indicated by the burning words of the prophet Habakkuk? Born and bred from the days of Adam in the sole pursuit of *objective* happiness, man's ability to apprehend interior life is so far gone as to need supernatural quickening. Hence, "Except a man be born again, he cannot see the kingdom of God." What cares he for spirit life? He cannot see it, he cannot hear it, nor can he handle it. His resources are all from without, while it is plainly to be inferred from our text that the spirit of God can satisfy the heart unconditionally and to the utmost, that is, without any reference whatever to material good. And surely must it be so, when it is no less a boon than the very essence of Him "who is blessed for evermore." Well may it be said, "Eye hath not seen, nor ear heard, nor have entered into the heart of man, the things which God hath prepared for them that love him."

Have we ever tried to get a clear idea of subjective or absolute happiness? There are some, no doubt, who have come near it in those happy seasons, when, so far from drawing upon the outer world for their joy, their own spirits have thrown a radiance all around them. This, in truth, is the nature of the inheritance involved in the gift of the Spirit. It is self-sustaining, to say the least. "That ye may be filled with all the fullness of God" was the standard of attainment set up by Paul. What that is may be more easily imagined than described. Where now are the day-dreams of the alchemist! Behold a secret that will enable us to distill the aroma of joy from desolation itself! Full communion with the life of God! One hardly dares to speak of it. Who is there that has tested the "fullness of joy" which surrounds his presence? Let *him* tell of the heights and depths of absolute happiness. Would it surprise us if much of the infidelity that prevails should be traced to the impression that all this is far too good for us to believe? Can we not now tell why the same apostle saw fit to urge upon us to "come *boldly* unto the throne of grace?" No wonder "the Kingdom of Heaven suffereth violence and the violent take it by force." The fact is that the "exceeding riches" of the *grace* of God so far surpass our powers of conception, that some have to endure a life-long struggle with unbelief on that same point. Yet, from the very majesty of God, we need to be assured of his equal tenderness, that we be not discouraged. Who has not noticed how studiously, how considerably, Christ presents him to his disciples as a *parent*—always using the expression "Your Father," which is sweetly echoed by Paul: "And because ye are sons, God hath sent forth the spirit of his Son into your hearts, crying, Abba Father." Very clear it is that our *prophet* must have had some foretaste of the "spirit of adoption," which alone could have

ushered him into a presence which inspired him with an utterance so glowing. What was rare in his day has since become universal by the outpouring of the Spirit of Christ upon all flesh, so that if "there be many [now] that say, who will show us any good?" be sure it is because they are "straitened in their own bowels," for, by giving steady heed to the witness of the Spirit in the heart, there need be no end to the flow of absolute happiness (to say no more), for "the Spirit itself beareth witness with our spirit, that we are the children of God; and if children, then heirs; heirs of God, and joint-heirs with Christ." *Heirs of God!!* O, for a heart big enough to take in this great idea!

SOAP.

SOAP, a well-known detergent used in the toilet, in the cleansing of clothes and in some kinds of manufacture, is a chemical compound of alkali—generally potash or soda—with one or more of the animal or vegetable fats or oils. The ammoniated oils, though having some of the properties of soap, are called liniments. Certain oxides united with fats or oils are called soaps, but this use of the word is technical. Chemically considered, soaps are "steareates or oleates of potash or soda, or margarates and oleates of these alkalies," according to the fats employed. Animal and vegetable fats, when subjected to the action of potash or soda in hot solution, have their proximate elements—stearine or suet, and oleine or oil—converted into acids which unite with the alkali and make soap, leaving the glycerine or sweet principle free.

When we consider the great variety of animal and vegetable fats and oils and the varying proportions of each one's solid and fluid constituents, and the consequent varying proportions of the steareates, margarates and oleates of the alkalies used, we can see what a variety of soaps there must be. The differences which come from the admixture of coloring matters and perfumery are only superficial.

The more ancient nations were unacquainted with soap. The term, however, occurs twice in the Old Testament, but the words there translated soap are respectively the Hebrew for "ley salt potash" and crude soda from the ash of sea-weeds. Pliny ascribes the invention of soap to the Gauls, and its manufacture to the Germans. Pompeii had at least one soap-factory. In this connection it is interesting to observe that our modern civilization owes quite as much to the soap of the barbarians as it does to the art and religion of the Greeks and Romans. The ancients, however, used the alkalies and alkaline waters as substitutes for soap: so we may believe that the beautiful Bathsheba was nice and clean though she never had a piece of sweet-smelling soap.

There is a considerable number of plants having detergent properties. The *Saponaria officinalis*, or Bouncing Bet, a species of the pink family, used to be kept in the shops of England and was sold for washing purposes. The soap-plant of California (*Phalangium pomaridianum*) has a bulb which, if peeled and rubbed on cloth in water as you do soap, will make a lather. The soap-berry tree of South America has a fruit that is used for cleansing purposes. In Africa, says M. Geoffroy de Ville-neuve, a small insect of the carab genus, is collected by the natives and used for soap.

The soaps are heavier than the water with which they make a lather, the suds, so called, being small bubbles of air separated by a film of soap. Besides alkali and fat, soaps always have a varying percentage of water, which is lessened by time and

exposure. For this reason old soap is more economical than new. The common marbled Castile soap has 14.5 per cent. of water, and a hard soap made of cocoanut oil and soda has 73.5 per cent. With this soap clothes are washed in sea-water.

Acids decompose soap by uniting with its alkali. It is also decomposed by the salts of lime, of magnesia and of the metals, as they occur in hard water. The adulteration of soap is detected by dissolving it in alcohol: pure soap should have little or no residuum.

The medicinal properties of soap are laxative and anti-acid. In case of acid poisoning, and no alkalis at hand, a thick solution of soap should be administered at once.

The deterative power of soap is increased by introducing spirits of turpentine, benzole, camphene, naphtha and the like. In this case the odor of these substances has to be disguised by perfumery. Fine sand and pulverized pumice-stone are mixed with soap for scouring purposes.

The hard soaps are made with soda, and the soft ones with potash. The hardness of soap, however, depends on the character of the fats or oils used. Rosin is used to soften the tallow-soaps, and not to harden them as is supposed.

The kind of fat or oil used for soap is determined by what is cheapest in any particular place. Olive-oil is used in the south of Europe, while tallow is used in the north. Palm-oil and whale-oil are too offensive in smell to be much used except for special purposes. We may say the same of rock-oil, though we know that some of the oily parts of petroleum are made quite inodorous.

Our limits prevent us from noticing any but a few well-known hard, or soda soaps. Castile soap is made of olive-oil. The white variety is the more delicate, while the marbled is the more economical. The original Windsor soap was made of mutton tallow, scented with caraway and bergamot, but on the continent 20 to 35 per cent. of olive-oil is used in place of tallow. The most expensive and delicate soap is that made from the oil of almonds; transparent soap is made from kidney fat and pure soda, then dissolved in alcohol, filtered, evaporated and molded. Lard is generally used for the better toilet soaps.

The soft or potash soaps have an excess of alkali in solution; they are for this reason unfit for the toilet, and are mostly used in domestic washing and in the finishing of woolen cloths. They differ as the fats or oils from which they are made differ. The common soft soap of the French—*savon vert*, or green soap—is made from hemp-seed oil. The soap used in farm-houses is the product of waste fats—butter and lard and tallow—boiled with the ley of wood-ashes. The best kinds have a brownish mottled appearance, a jelly-like consistence, and but little excess of alkali. Soft soap can be hardened by adding common salt; the salt is decomposed, its chlorine uniting with the potash and leaving the soda to join the fats. The materials for soft soap are now articles of trade, and the housekeeper and manufacturer have only to melt a definite quantity of prepared soap-stock in a fixed measure of hot water to get a very clean, serviceable soap.

If in addition to the facts here collected, the reader wishes for special information on soap-making we must refer him to Prof. Campbell Morfitt's treatise on "Chemistry Applied to the Manufacture of Soap and Candles," as being the only American work of the kind known to us.

A. B.

From a paper in the March No. of the *Exchange and Review*, we gather some interesting items in regard to the wealth and resources of the Great West. The writer treats of the vast region lying between the Mississippi and the Pacific slope. This he divides into "three

great belts—the arable, the pastoral, and the mountainous—the first of which stretches west of the Mississippi to an average width of 400 miles, and extends from our northern national boundary in latitude 49° to the Gulf of Mexico, a length of not less than 1,000 miles. The second, or pastoral belt, is about 400 miles wide, and is as much longer than the arable belt as the gulf coast trends southward at its southern base. The third is that broad and immense range known by the general appellation of the Rocky Mountains, not much, if any, less in area than either of the other two great belts. Much the greater part of the first or arable belt is composed of rolling prairie, most of which is very fertile and easily worked. "This belt," the writer well says, "is an empire in itself, in which one hundred millions of people might find subsistence. The second or pastoral belt is more generally known as the Great Plains, a vast tract of land nearly all of which is fertile enough, and beautifully undulating, but treeless, and exposed to sweeping winds, without a sufficiency of rain for agriculture, but enough to clothe it in a coat of short but exceedingly nutritious grass, principally buffalo grasses."

WILD HONEY.

BY H. THACKER.

THE wild honey frequently mentioned in the Scriptures doubtless was similar to that of the hive bee (*A. mellifica*) of this country, which is also found wild in all parts of the United States and in Europe, as well as in Asia. The humble bee (*Bombus*), of which there are many species in this country, also produces eatable honey, similar to that of the common hive bee. Though it has never, to my knowledge, been domesticated, yet most persons, especially boys who have worked in the hay-field, are well acquainted with it. I well remember that when a lad my extreme fondness for honey led me into many a battle with the humble bee in order to obtain a few drops of the precious fluid; and in which battles I sometimes came off badly worsted. Boys, however, are not the only lovers of honey. It is everywhere considered a luxury, and in some countries forms an important article of diet. The ancients made much account of honey; and indeed the Israelites seemed to consider a land flowing with milk and honey, as affording the principal necessities of life. That the promised land abounded in wild honey there is ample proof. Samson, on going down to Timnath to take a daughter of the Philistines to wife, found a swarm of bees and honey in the dead carcass of a lion that he had slain on a previous visit; which also furnished the occasion of a notable riddle. Jonathan, the son of king Saul, whilst pursuing the Philistines in battle, came to a wood, and finding honey on the ground that dropped from the trees, put forth the end of the rod that was in his hand and dipped it into a honey-comb and tasted it, for which offense the sentence of death was passed upon him by his master. It is recorded in the New Testament, that John the Baptist came preaching in the wilderness of Judea, and his meat was locusts and wild honey; which also may be taken as evidence that wild honey abounded in the land. Travelers also agree in representing the Holy Land as abounding in wild honey stowed away by bees in the crevices of the rocks, and frequently to a depth beyond the reach of human effort.

Many years ago some parts of Illinois, it was stated, abounded in wild honey. A man living in that State once pointed out to me the spot where he assisted in taking a barrel of honey from a single tree; but from all accounts, it appears that some parts of Asia are most celebrated for their stores of wild honey. I think I have seen it stated by travelers in the eastern countries that enormous quantities amounting to hundreds and thousands of pounds are sometimes found stowed away in the rocks in a single mass.

I remember having been present when quite a

small boy at the robbing of a bee-tree, from which was taken more than a wash-tub full of comb filled with honey: and my younger brother once found a bee-tree which yielded, if I remember rightly, a much larger quantity. I shall not soon forget my adventure, when a lad of sixteen years, in robbing a bee-tree. A neighbor had followed his swarm of bees that took up their quarters in a large tree standing on another man's land. In the fall he solicited permission to cut the tree, but was refused. Thus the matter stood for the space of two or three years; when, on learning that I was something of an expert at climbing, he came and offered me half of the honey provided I succeeded in securing it without felling the tree. This was too tempting an offer to be resisted, and we at once repaired to the tree, myself prepared to climb it. But on arriving at the spot, I saw at a glance that climbing the tree by any ordinary means was out of the question. It was an elm, over four feet in diameter, and perhaps fifty feet to the first branch, which held the swarm. However, I must have the honey if it were a possible thing. My plan of operation was soon decided on; and procuring a long rope I ascended with it to the top of another tree about a foot in diameter, and at a distance, as I judged, that in falling would reach the crotch of the large tree which held the bees. I now made one end of my rope fast to the topmost branch of the tree, and by means of a stone tied to the other end succeeded in throwing it across the branch that contained the honey, near where it joined the main trunk. So far all right! I then descended; and giving my partner the end of the rope that reached nearly to the ground, I commenced chopping down the smaller tree which I intended should fall into the crotch of the large one. The cut was on the opposite side from the direction the tree was to fall, and by pulling on the rope the tree was handsomely lodged in the desired position; at the same time it was securely held to the stump by a portion of the uncut wood. The rope was securely fastened to another tree, and I ascended the leaning one with my axe, and found that its hold on the large tree was barely sufficient to sustain its own weight with the addition of mine. My object now was to cut down the great branch that contained the swarm. But there seemed to arise two or three difficulties in the way of the operation. In the first place, the limb was much larger than it appeared from the ground; it was full twenty inches in diameter and hung at an angle that made it probable it might in falling strike the tree on which I was standing and carry it away, and thus all might go down in the crash. Then, too, the first blow or two of the ax on the branch might perhaps bring out the whole swarm of bees upon me; and as I was standing in rather a ticklish position in the very topmost branches of the half-fallen tree, and but a few feet from the entrance of the bees, I did not know what might happen in case of an attack. I think I fully comprehended my critical situation; but the prize was too near and the thought of the delicious sweet too tempting to be resisted, and I determined on making the attempt to secure it. The first few blows of the ax brought out quite a number of bees, but as they did not show much disposition to give battle, I pecked away on top of the limb with the ax in one hand and holding on with the other. The branch shot out nearly horizontally for several feet, and then curved somewhat towards the tree on which I stood, thus giving the thing rather an ugly look. But I had made up my mind to drop my ax if possible, on hearing the first crack of the limb, and hastily descend, leaving the wind to do the rest of the work. I worked away, perhaps for an hour or more, at the slow and tedious job; but when the limb began to give way there was no time for thought. The timber being very old

and brittle, the branch gave one tremendous crack, and the next instant there was a crash upon the ground below. I had ceased to breathe for the time being, and felt certain that every hair in my head stood on end. But luckily the limb in falling only scraped the outer branches of the tree on which I stood, and I descended in triumph; yet with a secret feeling that I should never again run the like risk for a tree full of honey. It did not, after all my trouble, prove to be a great prize. The bees having remained a long time in the tree, the moth had got in and destroyed a large amount of the comb, so that we did not obtain above a pailfull of passable honey, which amount the owner of the bees refused to divide, saying that I deserved all the honey and more too, as a reward for my perseverance in obtaining it.

ONEIDA CIRCULAR.

WM. A. HINDS, EDITOR.

MONDAY, MARCH 25, 1872.

The following correspondence will explain itself. The first letter had underneath the address this note to the post-master: "E. Y. is a reader of the ONEIDA CIRCULAR. Please take a little pains."

165 —, —, Jan. 21, 1872.

E. Y.—DEAR SIR:—We are readers of the CIRCULAR and strong converts to the O. C. religion; and since it is impossible to join them, we have settled here, and invite others earnest in the work to come here and live our religion. If this comes to you let me hear from you.

Yours in deep religious faith, E. B. SCHUTT.

Fontana, Kansas, March 8, 1872.

TO THE ONEIDA COMMUNITY:

FRIENDS:—I enclose a note [the above] received a month ago. It explains its mission, and shows the advantage taken of the initials and P. O. addresses found in the columns of the CIRCULAR. After thinking about the subject a few days I answered the note, declining the invitation, and advising the writer to "count the cost," and be first assured that a true inspiration had prompted the step he had taken, and if such were the case, to go ahead; but intimated that I had a work here to do, and did not wish to join a Community until the Spirit of Pentecost came upon my neighbors. No. 3 of the CIRCULAR (Jan. 15th) had not then reached me, having been delayed somewhere. I received it, however, a few days ago, and learned from its "Answers to Correspondents" that the same "E. B. S. Chicago, Ill.," had made an effort to get his project advertised. Having failed in that, the plan has been adopted which is indicated on the outside and inside of the enclosed letter. "Two cannot walk together unless they agree," and so two Communities cannot be based on Christ and Christian unity *unless they agree*; and so long as "Mother Oneida" says "Wait," those who wish to copy after her should wait; for if she is right in saying "Wait," those who go on are wrong; and if she is wrong, no one is right in copying after her model.

Firmly believing you are right, I remain,

Your friend,

EZRA YODER.

Mr. Schutt sent us at the outset of his present movement a statement of his project, and requested us to call attention to it in the CIRCULAR. His previous letters to the Community had not favorably impressed us respecting his ability to organize a successful Community, and this fact, in connection with our general conviction that the highest wisdom does not at present encourage the organization of new Communities, led us to respond to his request as follows: "We do not think favorably of your present movement, and are not free to advertise it." That is all we now have to say respecting Mr. Schutt's enterprise; but will add a few thoughts for the benefit of those who are seeking to imitate the Oneida Community and its leader.

The principle of imitation must be managed

carefully, or it may lead persons into great mistakes. Imitation results in success only when it is genuine and complete. Persons will make fools of themselves who undertake to imitate the careers of inspired men by copying their external acts. That is not a genuine imitation; for it does not attempt to imitate the main thing—the inspiration under which their outward acts were wrought.

For a similar reason persons who are seeking to imitate the Oneida Community will not gain the results they seek unless they are thorough in their imitation. They may rig themselves out with a complete set-up of the doctrines and social regulations we have developed; and yet may make a wretched failure in their attempts at imitation, unless they find out how to imitate the inspiration—how to obtain the same authority and guidance under which the O. C. was organized and has since acted. The "History of American Socialisms" shows that successful Communities have been founded on religion, and on religion that consists chiefly in inspiration, or which has a positive afflatus. Persons who attempt to form Communities in a mechanical way, without first receiving the genuine afflatus—that which proceeds from Christ—will disgrace themselves, and disgrace us so far as their enterprises are regarded as imitations of the O. C.

Mr. Yoder refers to our exhortation to outside friends to be patient respecting the formation of new Communities, and to wait. We are pleased with what he says on this point; and yet we are as anxious as anybody can be to see new Communities started. Most of our leading members were educated under the old proselyting system of revivals, and have not lost their fervor for the triumph of Christ and the truth; besides we all claim to have a fair amount of benevolence; and nothing would so delight our hearts as to see ten thousand Communities started. It is at the cost of much self-denial that we again and again say to our friends—"Wait." We know it would be suicidal for us to encourage people to start Communities until the true word of inspiration comes. When that will come we cannot tell. We can only wait with others, and hope that the same power which began the work will go on and complete it.

THE SACRIFICE AND THE GAIN.

COMMUNISM has been called "the grave of liberty." It is the grave of liberty exactly in the same way that civil government is the grave of liberty. Read the following from Blackstone (commended by his reviewer "as one of the very few intelligible descriptions of liberty hitherto communicated to the world," and you will see that any form of society is the grave of liberty, if by liberty you mean the natural right of every individual to do whatever he pleases without control:

The absolute rights of man, considered as a free agent, endowed with discernment to know good from evil, and with power of choosing those measures which appear to him to be most desirable, are usually summed up in one general appellation, and denominated the natural liberty of mankind. This natural liberty consists properly in a power of acting as one thinks fit, without any restraint or control, unless by the law of nature: being a right inherent in us by birth, and one of the gifts of God to man at his creation, when he endued him with the faculty of free-will. But every man, when he enters into society, gives up a part of his natural liberty, as the price of so valuable a purchase; and in consideration of receiving the advantages of mutual commerce obliges himself to conform to those laws which the community has thought proper to establish. And this species of legal obedience and conformity is infinitely more desirable than that wild and savage liberty which is sacrificed to obtain it. For no man that considers a moment would wish to retain the absolute and uncontrolled power of doing whatever he pleases:

the consequence of which is that every other man would also have the same power; and then there would be no security to individuals in any of the enjoyments of life. Political, therefore, or civil liberty, which is that of a member of society, is no other than natural liberty so far restrained by human laws (and no farther) as is necessary and expedient for the general advantage of the public. Hence we may collect that the law, which restrains a man from doing mischief to his fellow citizens, though it diminishes the natural, increases the civil liberty of mankind. * * * Laws, when prudently framed, are by no means subversive but rather introductive of liberty; for (as Mr. Locke has well observed) where there is no law there is no freedom.

According to Blackstone, society sacrifices an inferior kind of liberty to gain a superior kind. Communism sacrifices the whole liberty of selfishness, and gains a liberty as much nobler than the liberty of common society as that is nobler than the liberty of savages. H.

Here is a bit from one of the magazines worth looking at more than once: "I've seen an old woman that wouldn't fetch five cents if you should put her up for sale at a public auction; and yet come to read the other side of her, she had a trust in God Almighty that was like the bow-anchor of a three-decker. It's faith in something and enthusiasm for something that makes a life worth looking at."

Prof. Waterhouse Hawkins, we are told, "ventured a sharp criticism on the absurdity of attaching wings to angels, at the close of one of his recent lectures on the comparative view of the human and animal frame as applied to art," claiming that such appendages would hinder rather than help the movements of bodies fashioned like ours. Success to the Professor's effort to expunge from the popular fancy this unscientific, irrational, inartistic, un-biblical notion.

CAN ONE BE SIN-PROOF?

HENRY WARD BEECHER VS. SAINT JOHN.

Henry Ward Beecher, if correctly reported, says:—"There is no man that lives that does not sin. There is no man that lives who can not be made to sin. All men could not be made to sin in the same way. Some men cannot be made to sin by meat and drink. Others can. And of those who cannot be made to sin by meat and drink, some can be made to sin by temptations of money. There is many and many a man whose morals are pure enough, but whose avarice is as intense as a furnace of fire; and he might be made to sin there. He might not at one, or two, or three degrees, but he might at twenty or thirty degrees. Some are fusible at a low temperature, like lead, and others require the compound blow-pipe to fuse them; but there is no man who cannot be fused at some point. Some may be warped by their sympathies and affections who could not by their pride. But though one might not be toppled over by pride, he might by vanity. And though one might not be made to yield by vanity, he might be led into compliance by benevolence and gentleness and good will. Some men can be overcome in one way, and some in another. Somewhere or other there is a joint in the harness through which the arrow could go. The implication is that every man is temptable, and that no man, being tempted has power to cure himself."

Saint John says (1st epistle 3: 3-10), "Every man that hath this hope in him purifieth himself, even as he is pure. Whosoever committeth sin transgresseth also the law; for sin is the transgression of the law. And ye know that he was manifested to take away our sins; and in him is no sin. Whosoever abideth in him sinneth not: whosoever sinneth hath not seen him, neither known him. Little children, let no man deceive you: he that doeth righteousness is righteous, even as he is righteous. He that committeth sin is of the devil; for the devil sinneth from the beginning. For this purpose the Son of God was manifested, that he might destroy the works of the devil. Whosoever is born of God doth not commit sin; for his seed remaineth in him; and he cannot sin, because he is born of God. In this the children of God are manifested, and the children of the devil: whosoever doeth not righteousness is not of God." Again (5: 18)—"Whatsoever is born of God sinneth not; but he that is begotten of God keepeth himself, and that wicked one toucheth him not."

COMMUNITY JOURNAL.

ONEIDA.

Tuesday, March 19.—T. L. Pitt and J. P. Hutchins left home to-day on an expedition to the south branch of the Potomac. This move will make them a little beforehand with spring, but for our own selves we have to say—

The snow; the snow; 'tis everywhere;

Like feathers drifting

It comes a-sifting

Through all the darkened air.

Before the wind, across the plain.

It now is walking

Like fiends a-stalking

To mitigate their mighty pain.

Wednesday, 20.—The equinoctial storm is raging about us with all its wonted fury. To-day is perhaps the most trying one of the season, though not the coldest. Charles Primo, one of our hired men, and used to all sorts of weather, became so chilled in coming from Oneida that he could not walk with his team when he got down to warm himself. Getting near home, he left his horses and made his way to his house with some difficulty, though not in any way frozen.

—H. J. S. tells us that the Larch is opening its cones and dropping its seeds; and this reminds us that the Larch—or European Tamarack—has two or three good things about it: in the spring its delicate needle-shaped leaves clustering on the slender twigs like green rosettes; in the fall its foliage turning yellow and looking like gold among the pines; and in the winter its great store of cones, the tree keeping all it has and getting more every year.

—Among our callers the past week was one of the Oneida Indians from Green Bay, Wisconsin, whose neat and prepossessing appearance reminded one of some thrifty merchant. He said that about fifteen hundred of his people are living on their reservation at Green Bay. Their lands are twelve miles long by eight in width, and are held in common; individuals only owning their improvements in the way of buildings, etc. They have mostly left the old hunting, trapping and fishing ways of their forefathers, and are fast becoming prosperous farmers. On being asked if they had any chiefs, our informant replied, "Yes, too much; about thirty."

CONVERSATION AT WILLOW PLACE.

N.—Let us all lay this truth to heart, that the woman becomes far greater as the "glory" of the man than she could be by herself. This is a universal principle, governing all partnerships that proceed according to the theory of the ascending fellowship. Christ is the "glory" of God. What would he be if set by himself? Why, Satan! The peculiarity of Satan is, that he is for himself, and acting by himself. Christ is wise enough to acknowledge his entire dependence on the Father, and the result is that God has put all things under him. He is "King of kings and Lord of lords." God makes him as great as he can make him. It is thus with all such relationships. If you follow up the ascending fellowship you will find that it will make you not only greater than you can be by yourself, but greater than you can have any conception of while in the selfish, isolated state. Your destiny will be proportioned, not to your own greatness, but to the greatness that you are joined to, that has taken possession of you and flows through you. This universal rule, carried out to its broadest generalization, would perhaps take this form: Individualism or the *ego* will be made infinitely greater by joining the *we* and being absorbed into it. *I am one; we are all.* If the *I* attach itself to the *all*, it will become as great as the *all* can make it. This is the great labor

of salvation, to melt the *one* into the *all*—the *I* into the *we*. The great bug-bear of all the lovers of superficial liberty is the fear that if they merge themselves in the great unit, subjecting *self* to the *all*, they will be cramped and reduced to tame, servile sort of people, and their genius destroyed. We are bound to prove the contrary of all this: that individuality will blossom into infinitely greater productiveness and splendor when attached to the *all* than when working by itself.

ARRIVALS—D. E. Smith from New York; W. H. Woolworth, Mrs. A. S. Burnham, and Mrs. Abbott, from Wallingford; G. W. Hamilton from the West; J. R. Lord from Baltimore.

DEPARTURES—G. D. Allen and F. W. Smith for New York; Miss Virtue Conant for Wallingford; T. L. Pitt and J. P. Hutchins for West Virginia.

WALLINGFORD.

—Mr. Kinsley, who has been engaged in clearing our acre-and-a-half of peat land east of the village, reports that his company have finished the job. They have cut sixty cords of wood which they have drawn out of the swamp, and fifty-four piles for the dam which they have drawn home.

—The prospect of having a new road into town through our land is bringing in some inquiries from men who want to buy lots and build houses. Some of our men are studying the ground between the proposed dam and the village with a view to laying out the new road and staking off building lots.

—We have just finished the reading of "David Copperfield:" it has given us much pleasure. We are now reading Sir Walter Scott's "Monastery."

—*Monday, 18.*—The first sugar-snow fell yesterday. This forenoon C. and L. began gathering sap from less than a score of maples. Messrs. Burt, Kinsley, Marks and Whitney are engaged in hewing timber for the dam.

HYDROPHOBIA.

There is yet to be recorded "a single case of cure of this terrible disease where" the usual symptoms have fully developed. Every remedy known in medicine has been tried and found utterly futile. But in the way of prevention when taken in time the case is quite the reverse. From numerous and repeated trials Youatte found that an immediate and thorough application of nitrate of silver would destroy the virus. This fact he more than once demonstrated on his own person. Hydrochloric acid, commonly known as muriatic acid or spirits of salt, has been found to be a reliable preventive. The wound should be filled with the acid, which seems to at once neutralize or destroy the rabid virus. In case neither of these agents can be obtained, a red-hot iron should be freely applied to every part of the wound. In any case where there is the least doubt in regard to the condition of an animal inflicting a wound, one of the above-mentioned remedies should be at once applied.

G. E. C.

STUDENT'S LETTER.

Tilghman's Sand-Blast Process.

New Haven, Conn., Mar. 16, 1872.

Monday evening came Dr. Barker's lecture. The Doctor is a comparatively young man—scarcely forty, I should think, with rosy cheeks like a girl, and auburn side-whiskers. He is one of New Haven's particular pets—always sure of a crowded house. Indeed, I never saw at Sheffield Hall a greater crowd than he had that evening. His style of delivery is singularly pleasing, and the subject must be a dry one that he cannot make interesting.

Of the Sand-Blast we all doubtless know some-

thing, he said, and he intended to give us an exhibition rather than a lecture. First, he sketched briefly its history. Gen. Tilghman was led to its discovery by noticing the way in which water, especially water with more or less sand in it, cuts into rock. The window of the cottages by the seashore, he further observed, were "depolished" or ground by the action of the sand driven by the winds. This was in the spring of '70. All summer he gave his attention to the subject—experimenting with a stream of sand fed into currents of air, water and steam. He took out a patent in the fall, which the Doctor read to us, and which covers the whole ground—cutting any substance by means of throwing fine particles against it, if I correctly heard the specifications.

Dr. Barker began his exhibition by showing us the machine that is used—nothing but a straight tube half an inch in diameter inside of one an inch in diameter. The steam goes through the outside pipe, and the sand through the little one. The steam sucks the sand out by creating a partial vacuum, and throws it against whatever you want to cut. A piece of plate-glass was exhibited, one inch thick, through which were drilled several holes, big enough to put your finger through. Next was shown a file, such an one as is known to the trade as a twelve-inch Bastard: two round holes and a long slot were cut through it; done under the Doctor's own eyes in thirteen minutes, the blast being steam at four hundred pounds. To cut out any pattern in glass, iron, wood, marble or almost anything else, you have only to put over it a pattern made of something the sand cannot cut, a "resist," and direct the blast over the whole surface of the plate. The most perfect resist is India-rubber. He showed us plate-glass deeply cut in a fanciful pattern, the rubber resist used not having been perceptibly thinned. A common register is also used in cutting stone, though, of course, it is itself soon cut in pieces. He showed us beautiful designs cut in marble, glass and wood. The marble in particular was very beautiful—the slab was thin, and had been cut clear through. Its most useful application apparently is boring tunnels. A Pennsylvania railroad company is at present using the process to make a tunnel through the mountains. Compressed air is used. A groove is cut two inches wide and two feet deep around the entire circumference of the tunnel; the center is then blasted out with nitro-glycerine. The most delicate application is in cutting photographs on glass, in which but half a pound of steam is used. By a recent invention in photography, the chemicals used to "fix" the impression answer for a resist. By a very slight cutting, a picture as fine and delicate as a photograph is made on the plate. The glass pictures the Doctor exhibited were simply wonderful. By means of a cylinder of compressed air he cut several holes through window-glass, and by a hand-blower he cut or rather etched patterns on glass.

But I need not enlarge. In a few years glass ornamentation of this kind will be cheap.

At the conclusion he told us that the Express Co. had managed to smash several specimens, and the audience were welcome to carry away the pieces. A scene ensued, which pleasantly reminded us of a college "rush." K.

OCCASIONAL NOTES.

III.

DETROIT—MICHIGAN SALT—GRAND RAPIDS—ITS TRADE, ETC.

Grand Rapids, Michigan.

Detroit, the natural metropolis of Michigan, has experienced a healthy growth for some years past; and the natural development of the State, with its many advantages, is constantly telling on the prosperity of this fine city. It is pleasantly

situated on the Detroit river, the connecting link between the upper and lower lakes. Manufactories of various kinds are springing up here, and the jobbing trade has already become an important interest. Michigan has long been noted for its furs; and one firm in Detroit (F. Buhl & Co.) has succeeded in building up a large wholesale trade in fur goods of its own manufacture, and not only supplies them to the city and State, but sends many to Boston, New York and other large places east and west. Many elegant marble-front stores for the retail dry-goods trade have recently been erected, together with large buildings for the wholesale business.

Many other indications of the growth and prosperity of Detroit are to be seen as one passes through its wide and well-kept streets. With a present population of about 75,000, some of the enthusiastic business men talk of having a population here of 250,000 in a few years. Since the Chicago fire many business men have removed here from Chicago with a view of settling permanently. The tunnel under the Detroit river is to be pushed forward the coming season as fast as possible, under the management of the engineers who were so successful in tunneling the Chicago river. This enterprise will be of great service to the growing railroad interests in this State, and allow them to more successfully compete with other routes for the through business. Many of the new roads of the State are feeders to that well managed corporation known as the Michigan Central Railroad, which throws all the business it can into Detroit.

Among the natural resources of Michigan is the extensive salt deposit at Saginaw, which place bids fair to become in time a powerful rival of Syracuse, N. Y., in the production of good salt. Already about 6,000 barrels are shipped annually; and it is supposed that salt can be obtained in paying quantities for thirty miles along the Saginaw valley. By going deep enough it is thought that salt can be found clear across the State to Lake Michigan. Salt is produced here at a first cost of from sixty-five to seventy-five cents per barrel, including thirty-five cents for the barrel. The business is carried on in connection with steam saw-mills with but little expense. The engines for the mills are run with the waste lumber, so that the power for pumping the brine, and the exhaust steam used in evaporating the same, are obtained very cheaply. Large saw-mills, capable of cutting from 40,000 to 50,000 feet of lumber per day, will turn out, with two or three extra hands, 100 barrels of salt a day. The salt wells around Saginaw are usually about seven hundred feet deep.

Grand Rapids, the second city in this State, had in 1865 scarcely 7,000 inhabitants, and now claims a population of 20,000. The business streets present a neat and thrifty appearance, as the stores and main buildings are mostly brick edifices resembling in color those of Milwaukee. The great business activity here reminds one of Chicago. The city is situated in the midst of a good farming and fruit-growing country and enjoys a large trade with the lumbering district at the north. The great fires last fall in this State destroyed, it is estimated, timber and lumber of various kinds equal in amount to 160,000,000 feet of lumber; but all of the trees in the burnt district that can now be cut and hauled into the stream will make good lumber, even if the logs are allowed to remain in the water one or two seasons. This makes lumbering very active the present season, and the lumbermen are cutting all they possibly can. All lumber produced on the coast of Lake Michigan and its feeders finds a ready market at Chicago and other lake ports. The quality of the lumber in Michigan is second to none outside of Canada, and this is one of the greatest States in the Union for producing

all kinds of hard wood like beech, maple and black-walnut.

Grand Rapids is situated in what is known as the "fruit belt"—a tract of land extending along the shore of Lake Michigan, and running back some forty miles, where all kinds of fruit are raised with great success. At Grand Haven on the lake, thirty miles distant from this city, \$35,000 worth of fruit was shipped last season; and land that a few years ago could have been bought for five dollars an acre, is now held at one hundred dollars for fruit-growing purposes. St. Joseph is, however, the most noted place on the lake for fruit-raising; and apples, pears, peaches, plums, cherries and the small fruits, are grown very extensively in its immediate vicinity. With a daily line of steamboats to Chicago, the fruit finds an excellent and easily accessible market. A new railroad is nearly completed through St. Joseph, which will form a new and direct route from Grand Rapids to Chicago via New Buffalo, and give additional facilities for the shipment of fruits.

Grand Rapids is becoming a considerable railroad center: one can now leave the city by rail in nine different directions; and several other railroads are in contemplation. Most of the railroads here are controlled by the three leading railroad interests in the country, viz., the Pennsylvania Central, New York Central and the Erie, each of which is pushing lines up through the wilderness of northern Michigan, with the straits of Mackinaw as the objective point, where they expect to connect with the eastern terminus of the Northern Pacific Railroad.

Large amounts of gypsum or plaster-of-Paris are found a few miles below Grand Rapids, on both sides of the Grand river. On the east side it is obtained under about twenty feet of earth, and the stratum is twelve feet thick, yielding 35,000 tons to the acre. West of the river the stratum runs under a hill, and a cavern several acres in extent has been dug out under the hill in excavating for the plaster. It is estimated that ten years ago less than 5,000 tons of plaster were shipped from here, and now it is thought that the annual shipment amounts to 45,000 tons. About three-fourths of this amount is used on the land, and the remainder is used for hard-finish in building. H. G. A.

THE VIOLIN.

V.

BY F. W. S.

THERE is considerable probability that the use of the bow for stringed instruments was discovered or invented in England. The first bows made with horse-hair were very rude things, having no piece corresponding to what we now call the "frog." If we imagine a bundle of horse-hair fastened to each end of an ordinary walking-cane, we shall have a tolerable idea of their appearance. Instruments played with the bow do not appear to have been numerous on the Continent before the eleventh century, but increased in number and variety toward the middle of it.

A great improvement in musical notation had taken place by the time of the eleventh century. The earliest Greek notation was constructed with the letters of the alphabet for characters. As their music became more complicated the number of characters increased, until they were obliged to vary the positions of the letters and introduce some other signs. In the time of Alypius, 115 B. C., the characters amounted to more than 1,600. The Romans also used the letters of the alphabet. Forster says that for a considerable time previous to the eleventh century notation was by what were called *neumes*. "These neumes were arbitrary characters or accents, several in number, which superseded the letters previously in use, and were placed over the words to be sung; a separate val-

ue or power or pitch being attached to each. Gerbert gives a table of forty, with their names. At first, until about the end of the ninth century, there were no lines or indications of clefs, and there being no guide, it was difficult to assign the value with any accuracy, and people differed as to the relative pitch. About the tenth century a horizontal line, either black or red, was placed over the words, which marked the place of a fixed note, and the place of the neumes over or under this line distinguished the quality of the note much better than had previously been the case. A song of the twelfth century on the battle of Fontanet or Fontanay, with notation in the style of the neumes, without the horizontal lines, is supposed to be one of the earliest examples of secular music. Afterward, two lines were used, one red, which had the letter F at the commencement, and the other yellow or green, which had C. Subsequently two other lines were added, one between the two former ones, and the other either above or below them; the letters at the head of the principal lines being the origin of the clefs of our modern notation. The notes were named, *ut, re, mi, fa, sol, la*, from the commencing syllables of the lines of a Latin hymn, of which the corresponding musical notes were each a tone higher than that of the preceding syllable. They were afterward called *C-ut, D-ra*, etc. Howell in one of his letters, October 7, 1634, mentions that the Germans, who were then great drinkers, would sometimes drink a health musically to each of the six notes, comprising them, together with the reasons for drinking, in the following hexameter:

"*UT RE levet MI serum FA tum, SOL itosque LA bores.*"

The lines were afterward increased to five; indeed, there are some ancient pieces of music with many more; but still much—especially of the ecclesiastical music—continued to be written with four. In the twelfth century the grave square notes, still to be seen in old church music, came into general use; these gradually improved in appearance, and became less in size as they became the representatives of greater celerity, until now they have reached that extreme railway speed and complication of figure scarcely to be managed in many cases but by musicians of the highest skill and practice, of whom, happily we have many."

These square or quadrate notes were invented by John de Muris. Thomas of Walsingham, in the beginning of the fifteenth century, says that a new character called the crotchet had been introduced, but mentions the five characters, large, long, breve, semibreve and minim; stating that musicians should remember that there should be no division beyond the minim.

In the twelfth and thirteenth centuries the viol seems to have undergone many changes. Numerous experiments were made to improve it, such as making four sound-holes, putting the bridge under the strings, etc. Some of the bridges were so constructed that one of the feet ran through the sound-hole and rested on the inside of the back. Forster gives numerous interesting illustrations taken from designs found on old windows of the royal chapels, on MSS in the British Museum, and elsewhere, from sculptures at what is called the Musicians' House at Rheims, etc. It was at the close of the thirteenth century that the sides of the viol, which had before been convex, became more or less curved inwards, to allow freer scope for the bow.

CORRESPONDENCE.

Wilmington, N. Y., Feb. 24, 1872.

To the CIRCULAR:—I am in love with your teachings and with all who strive heartily for the Spirit of Truth to guide them; for if we seek as the Spirit directs we shall find. I have found needed help; the CIRCULAR has helped me in understanding the Bible. It has helped me to live

for God and humanity. I send five dollars to aid in its publication. J. J. B.

New York, March 12, 1872.

DEAR O. C.—How to honor the truth is a subject of no little thought with me. Scarcely a day passes that I do not have an inward fervor to do more for the truth; and yet I see no other way than to plod along, have patience, wait on God, be cheerful and hopeful. I have a craving for improvement, and my heart longs to be so engaged in the service of God as to be wholly lost to self; and sometimes, when reflecting upon the deranged state of things among human beings, the hardness of heart toward God and man in the world, the suffering, misery, wretchedness, selfishness which surround me, I am weighed down in sympathy, and tears will flow and a prayer arise in my heart that I may be of more service to God in his work in bringing his own to himself in union with him and with one another, softening humanity, and making this a brighter and a better world. Steeped as this city is in mammon-worship and sensuality and pleasure-seeking, the temptation is great to be drawn more or less into some course whose end terminates in worldliness; and one has to watch carefully and examine himself closely, that he may not be lured into the meshes of Satan. I find that "going home"—turning my attention interiorly—is of great efficacy in avoiding temptations. Notwithstanding the multiplicity of alluring forms in which Satan disguises his temptations, I believe God has untold more numerous attractions with which to draw and captivate us, were we determined recklessly to seek him, and thereby discern, day by day, as revealed by him, the glorious things which Paul hints at in the following language—"Eye hath not seen nor ear heard, neither have entered into the heart of man, the things which God hath prepared for them that love him."

Indeed, have not all the really good things in this world and all true progress been the result of the love of God? And how dark and cold is the unbelief that would ignore this, and reason as though science and art are not of God, when, in fact, all true science is the form of his thought, and all true art that thought embodied? Is it not notable that all our really good and spiritual, and hence truly great, men and women that have been a blessing to the race through their discoveries, have been made the recipients of these discoveries through their love of God? As corroborative proof of this, see the worthy heroes of God mentioned in the Old and the New Testament, and how wonderfully were they educated, rising in true knowledge and spiritual acquirements above all the worldly learned around them. God is love; and they who love God love one another, and dwell together in peace and unity. I believe it is for this love that the world is starving. Multitudes for the lack of it are going down to their graves hungry, starved, blind to the fact that Christ, the spirit of love, is in them, beating at their hearts, and longing to nourish and fill them with his spirit of love, without money and without price, and unite them with God, and forever bless them. O, fevered brains and aching hearts! there is no real cure for you except in receiving and confessing Christ in you in faith, and giving your cares and burdens to him. Believing this, I confess with my whole heart Christ in me a perfect Savior—a spirit of pure love, with whom it is more blessed to give than to receive. M. L. B.

SCIENTIFIC NOTES.

An English road-steamer, of Thompson's patent, built for the Indian Government, has made a trial trip from Ipswich to Edinburgh, a distance of 450 miles, in seventy-seven hours traveling time. The principal difficulty encountered was from "foraging for water and coal." The steamer has drawn a load of forty tons up a hill of one mile with an incline of one in seven.

A definite step toward making a tunnel under the English Channel has been taken, in the formation of a company and the subscription of £30,000 to make a test of the practicability of the scheme by a trial shaft and drift-way about half a mile beyond low-water mark on the English side. The plan of the engineer, M. Thomé de Gamond, is to follow the lower or gray-chalk strata.

The trial trip of a new balloon, having a helm and a two-winged helix worked by men, and capable of pro-

ducing a velocity of about six miles an hour, took place in France, February 5. In this trial, with a wind from the southwest of about fifty feet a second, the balloon moved in a southeast direction, traversing a distance of one hundred miles in two hours, and alighting without injury, in a high wind, on the very spot designated.

Excavations have been recently made in several places near the supposed site of ancient Troy, and at a depth of about fifteen feet walls over six feet thick have been found. Many utensils and implements have also been found at various depths, some of hard black stone, others of pottery, and vases of clay of excellent workmanship, many of them bearing the sculptured head of an owl, apparently impossible of construction with the rude stone tools which alone were discovered. Several Priapic statuettes, one of terra-cotta, made in a very life-like manner, and another of stone, very much like those that are seen in the temples of India, indicate that the race that left these memorials were of Indian descent. These articles show a taste for ornamentation which their rude tools did not enable them to execute.

A rolling-mill in St. Louis has been experimenting in the use of petroleum for fuel in the smelting of iron, with quite favorable results. The *Pittsburg Commercial* speaks of a test tried on a thousand pounds of pig-iron which had been smelted with raw Illinois coal, and in consequence of the large admixture of sulphur condemned and thrown aside as worthless. From the petroleum test it came out in the shape of iron of the first quality, closely resembling steel. Other experiments showed that iron smelted with petroleum is of far greater tensile strength than the average of iron, and some have been rolled into sheets of five hundred to the inch in thickness, which are tough and flexible. In respect to the supply of petroleum the *Commercial* considers it inexhaustible in many parts of the world, especially in this country.

A clever application of science to commercial purposes has been made by an Italian gentleman, M. Eugenio de Zuccato, of Padua. By means of the invention any number of copies of a manuscript or design, traced upon a varnished metal plate, may be produced in an ordinary copying press. The *modus operandi* is very simple. To the bed and upper plate of a press are attached wires leading from a small battery, so that when the top of the instrument is screwed down the two metal surfaces come into contact and an electric current passes. An iron plate resting upon the bed of the press is coated with varnish, and upon this surface is written with a steel point any communication it is desired to copy. The letters having thus been formed in bare metal, a few sheets of copying paper are impregnated with an acid solution of prussiate of potash, and placed upon the scratched plate, which is then subjected to pressure in the copying-press. An electric current passes wherever the metal has been left bare (where the writing is therefore), and the prussiate solution acting upon the iron, there is found prussiate of iron, or Prussian blue characters, corresponding to those scratched upon the plate. The number of copies that may be produced by this electro-chemical action is almost unlimited, and the formation of the Prussian blue lines is, of course, instantaneous. The patent, which is, we believe, the property of Messrs. Waterlow and Sons, forms a remarkable instance of science serving as handmaiden to the man of business.—*Nature*.

The fears excited in the minds of the weak-minded by the announcement of Prof. Plantamour of Geneva, that the earth is to be hit by a large comet on the 12th of August next, are met by the scientists with such considerations as these:

"In the present state of science nothing could be more acceptable than the appearance of a large comet, and the nearer it comes to us the better, for the spectroscope has a long account to settle with the whole genus, which up to this time has eluded our grasp." "Kepler, who was wont to say that there are as many comets in the sky as fishes in the ocean, has had his opinion indorsed in later times by Arago, who has estimated the number of these bodies which traverse the solar system as 17,500,000. But what follows from this? Surely that comets are very harmless bodies, or the planetary system, the earth included, would have suffered from them

long before this, even if we do not admit that the earth is as old as geologists would make it. But this is not all. It is well known that some among their number which have withal put on a very portentous appearance are merely the celestial equivalents of our terrestrial "wind-bags"—brought down to their proper level they would have shrunk into very small dimensions indeed. But there is more comfort still. The comet of 1770 positively got so near to Jupiter that it got entangled among his moons, the diameter of the smallest of which is only some 2,000 miles; but the moons pursued their courses as if nothing had happened, while the comet was so discomfited by the encounter that it returned by another road—i. e., astronomically speaking, its orbit was entirely changed. While, last of all, in 1861 we actually did pass through a comet."

FACTS AND TOPICS.

About twenty-three million pounds of Australian preserved meat were imported into Great Britain during the last year.

Some Swiss engineers have undertaken to construct a railroad to the summit of Mount Vesuvius, similar to the one at Mount Washington.

Germany produced 26,774,388 tons of coal in 1871, nearly all of it being used for home consumption. The quantity produced had nearly doubled in ten years.

The State of California has entered into the business of planting trees with enthusiasm, and has employed a man to superintend it at a salary of fifteen thousand dollars a year.

A French explorer in Borneo, in a paper read at the Royal Geographical Society meeting of Jan. 22d, mentions several cases of orang-outangs employed by the natives as domestic servants, to collect fire-wood and the like.

Trees have been recently found in Australia taller than those of California, though not as large. One has been measured 480 feet high. The wood closely resembles red cedar, and the bark is sometimes eighteen inches thick.

Recently-published statistics show that of 146 schools in New York city which receive aid from the State 112 are Roman Catholic, with 52,000 pupils; 16, with 6,000 pupils, of other denominations; and 18, with 15,722 pupils, are not denominational.

Mattresses of granulated cork are used in the Russian navy, and were lately the means of saving the lives of nearly a whole ship's company. Rear Admiral Snyder of the British navy has recommended their use, not only for their greater buoyancy, but because their cost is not half as much as that of hair mattresses.

A contrivance has been patented by a tradesman of London, England, to mitigate the horrors of snoring: by means of a long flexible tube leading from the nose to the ear of the sleeper his own undulcet sounds awaken him. The contrivance reminds one of a well constructed factory-chimney which consumes its own smoke.

Several families of San Diego, California, have made arrangements to purchase a tract of land near the bay in that county and divide it in five or ten-acre lots, on which they will cultivate fruit trees and vines, holding their teams, farm-implements, gymnasium, reading, lecture and library rooms, as also their kitchen and dining rooms in common.

It is a singular fact that the Jews, who are generally thought to be extremely rigid in adhering to old customs and precedents, are divided into three schools of belief or practice in this country. One is of those who are conservative of old forms and habits in synagogue education and worship; another, of those who, in education and synagogues and worship, conform to progressive American ideas; a third, of those who, under the name of Ritualism, propose to drop all the externals of Judaism, and retain only a pure Deism, not differing essentially from the absolute religion of Theodore Parker, or that of the Society of Free Religionists.—*Church and State*.

THE NEWS.

AMERICAN.

The snow blockade in parts of Canada is so severe as to produce a coal-famine and a general stagnation of business.

The Missouri legislature has a bill before it to allow a jury, on convicting a person of a capital crime, to decide whether he shall be hung or imprisoned for life.

The Japanese Embassy have decided to send two of their number back to Japan, to ask for an increase of authority to enable them to accomplish the objects of the Embassy.

The suit against Mayor Hall in New York, which has been sometime delayed by the death of a juror, has been disposed of by the discharge of the remaining jurymen and an abandonment of the suit.

Congress has passed a bill which the President has signed, authorizing the survey of the boundary line between the United States and the British Dominion, from the Lake of the Woods to the summit of the Rocky Mountains.

News of the recapture of Zacatecas by Gen. Rocha of the Mexican Government forces is reported via Brownsville, Texas. Three revolutionist Generals had consolidated their forces for its defense, and escaped with only a small body of cavalry.

Since the commencement of the present year there have been more than twelve hundred applications to the American Colonization Society, from persons in the Southern States, for passage to Liberia. Last year more than two thousand applied whom it could not send for want of means.

A bill is before the New York Senate the first section of which prohibits any railroad in the State from charging more per mile for carrying freight over any part of their road than it does for carrying it over the whole line, and making it liable in a penalty of one hundred dollars for every violation of the act.

The telegraph informs us of an immense land-slide in Brazil, by which some thirty or forty miles of the railroad from the sea-board city of Santos to San Paulo, about ninety miles in the interior, a road over which much of the coffee, sugar, indigo, caoutchouc, and large quantities of drugs and dye-woods find their way from the interior to the sea-port was destroyed. It is thought that it will take over three months to restore the road to working order.

The corner-stone of a Female Normal College, occupying the block bounded by Lexington and Fourth-avenues and Sixty-eighth and Sixty-ninth streets, New York, was laid on the 19th inst. This building will be the largest in the country devoted to the education of women, in the Gothic style, of Philadelphia brick set in black cement, with trimmings of granite and Dorchester stone, and having class-rooms for fifteen hundred scholars, and an assembly-room capable of seating two thousand.

A company has been formed in New York which proposes to establish offices in convenient places in that city and in Brooklyn, whence telegraphic wires shall radiate to as many houses in the district adjacent as may choose to pay a stipulated sum for the privilege of being able to call a policeman or an errand-boy at any time of the day or night. The batteries will be at the offices, and in each house a key, which being touched, say once, will bring a messenger ready to go on any errand to any part of the city, or touched twice may bring a policeman. The design is to have the offices so numerous that three minutes' walk after a signal is given will bring the messenger in response. It is thought the advantages in case of small fires, or burglary, or sudden sickness in the night, will be so great as to make the experiment a success.

FOREIGN.

The Emperor of Austria has dissolved the Bohemian Diet, and ordered the immediate election of a new one.

Sebastopol in the Crimea has been opened by imperial decree as a military and commercial port, with its fortifications restored.

Colonel William Nicol Burns, the last survivor of the children of Robert Burns, the Scotch poet, lately died at Cheltenham, England.

The celebrated Dusseldorf Art Gallery and Academy of Arts in Prussia, with a large collection of paintings

and rare works of art, was destroyed by fire on the 19th instant.

The British Government has received from France the necessary notice for the abrogation of the commercial treaty between the two nations.

The Archbishop of Cologne, Prussia, has excommunicated four professors of the University of Bonn, Hilgers, Knoodt, Laugen and Rusch, for their rejection of the dogma of infallibility.

Another French Catholic priest, Père Jungua of Bordeaux, has protested against the dogma of papal infallibility. The Canon of the Cathedral of Bordeaux has also since joined in the protest.

At a late sitting of the Budget Committee of the French National Assembly, President Thiers consented to reduce the army contingent from 460,000 to 140,000 men, thus saving two million dollars to the country.

Stepney Green, in London, England, which was a fashionable quarter in the time of the Stuarts, but has since been neglected, has been renovated during the past winter, and is to be cared for as a public flower-garden in future.

The French Government, which has a monopoly of the sale of tobacco, has determined to advance the selling price of the article twenty-five per cent, yet it is not expected that the advance in price will increase the revenue. Hence the change is intended to curtail the consumption.

The question, "Was Saint Peter ever in Rome?" is, with the consent of the Pope, under discussion in that city, by three Catholic priests and three Protestant ministers. The decision of the question is of little consequence, but that the Pope should allow it to be debated is significant.

President Thiers in addressing the French Assembly defended the estimates of the War Department, insisting that it was "necessary to replace material of war, fortify the frontier, repair the fortifications, and create a real army." Two hundred million francs is required for new forts around Paris, and at Longwy and Belfort.

A second note from Earl Granville, in response to Mr. Fish's answer to his first, has been handed to our Minister in London. It does not recede from the position taken in the first note, but consents that the "counter cases" on both sides shall be given to the Board of Arbitration "without prejudice to the position taken with regard to indirect damages."

Considerable of a tumult was caused in the British House of Commons on the 19th inst. by a resolution introduced by Sir Charles Dilke, and seconded by Mr. Herbert, "to investigate the expenses of the crown." After a speech by the mover, specifying the items of expense, and a reply by Mr. Gladstone, the House rejected the resolution by a vote of two hundred and seventy-four against two.

OUT in a certain Western fort, some time ago, the major conceived the idea that artillery might be used effectively in fighting the Indians, by dispensing with gun-carriages and fastening the cannon upon the backs of mules. So he explained his views to the commandant, and it was determined to try the experiment. A howitzer was selected and strapped upon an ambulance-mule, with the muzzle pointed toward the tail. When they had secured the gun and loaded it with ball-cartridge, they led that calm and steadfast mule out on the bluff, and set up a target in the middle of the river to practice at. The rear of the mule was turned toward the target, and he was backed gently up to the edge of the bluff. The officers stood round in a semicircle, while the major went up and inserted a time-fuse in the touchhole of the howitzer. When the fuse was ready, the major lit it and retired. In a moment or two the hitherto unruffled mule heard the fizzing back there on his neck; and it made him uneasy. He reached his head round to ascertain what was going on; and, as he did so, his body turned, and the howitzer began to sweep around the horizon. The mule at last became excited, and his curiosity became more and more intense; and in a second or two he was standing with his four legs in a bunch, making six revolutions a minute, and the howitzer, understanding, threatening sudden death to every man within half a mile. The commandant was observed to climb suddenly up a tree; the lieutenants were seen sliding over the bluff into the river, as if they didn't care at all about the high price of uniforms; the adjutant made good time toward the fort; the sergeant began to throw up breastworks with his bayonet; and the major rolled over the ground and groaned. In two or three minutes there was a puff of smoke, a dull thud, and the mule—oh! where was he? A solitary jackass might

have been seen turning successive back-somersaults over the bluff, only to rest at anchor, finally, with his howitzer at the bottom of the river; while the ball went off toward the fort, hit the chimney in the major's quarters, rattled the adobe bricks down into the parlor, and frightened the major's wife into convulsions. They do not allude to it now, and no report of the results of the experiment was ever sent to the War Department.—*Selection.*

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